

# High School to College and Career Pathway: Secondary

Area of Study: Health Science & Technology Education



## Pathway: Biotech Research & Development Biotechnology

Middle School		State Requirements			High School Suggested Education Plan				College & Careers
7 <sup>th</sup> Grade	8 <sup>th</sup> Grade	Middle School		High School	9 <sup>th</sup> Grade Suggested	10 <sup>th</sup> Grade Suggested	11 <sup>th</sup> Grade Suggested	12 <sup>th</sup> Grade Suggested	Beyond High School
Language Arts 7 1.00	Language Arts 8 1.00	2.00	Language Arts	3.00	Language Arts 9 1.00	Language Arts 10 1.00	Language Arts 11 1.00	Language Arts 12 1.00	<p>There are a number of options for education and training beyond high school, depending on your career goals.</p> <p>&gt; Certificate</p> <p>&gt; Associate degree</p> <p>&gt; Bachelor's degree</p> <p>&gt; Professional degree</p> <p>&gt; On-the-job training</p> <p>&gt; Apprenticeship</p> <p>&gt; Military training</p>
Pre-Algebra 1.00	Elem. Algebra or Applied Math 1.00	2.00	Math	2.00	Geometry 1.00	Intermediate Algebra 1.00	Pre-calculus 1.00	Calculus or Statistics 1.00	
Science .50	Science 1.00	1.50	Science	2.00	Biology or Human Biology 1.00	Chemistry 1.00	(1 additional credit—class of 2011)		
Utah Studies .50	U.S. History I 1.00	1.50	Social Studies	2.50	Geography for Life .50	World Civilizations .50	U.S. History II 1.00	U.S. Government and Citizenship .50	
P.E. 1.00	Health .50	1.50	P.E./Health	2.00	Participation Skills and Techniques .50	Fitness for Life .50 / Health Education .50 Lifetime Activities or Sport .50			
The Arts .50	The Arts .50	1.00	Fine Arts	1.50	Fine Arts Courses 1.50				
			Financial Literacy	.50			Financial Literacy .50		
Keyboarding .50			Computer Tech.	.50	Computer Technology .50				
CTE Intro 1.00		1.00	Career and Technical Education	1.00					
<b>Workforce Trends</b> While biotechnology is still in its infancy, it is a dynamic career field that is expanding by leaps and bounds. "Biotechnology has become the centerpiece of therapy of all ailments, from heart disease and cancers to the common cold," says Carl B. Feldbaum, president of the Biotechnology Industry Organization (BIO).		Core Curriculum and elective requirements may vary district to district. Check with your school counselor.  Concurrent enrollment course offerings vary by school and district.			<b>Career and Technical Education Recommended Pathway Courses</b> (Students may select individual courses for exploration, or a complete Pathway for an in-depth focus.) <b>CLASS AVAILABILITY MAY VARY AT YOUR HIGH SCHOOL</b>				<p>1.00 credit</p> <p>2.00 credits</p> <p>3.00 credits for completion</p>
<b>Get the Facts</b> Biotechnology is predicted to be one of the most important applied sciences of the 21 <sup>st</sup> century.					<b>Course #</b>		<b>Foundation Courses: (required)</b>	<b>Credit</b>	
					51.1201		Biotechnology	1.00	
							<b>Elective Courses:</b>		
					51.0001		Health Science, Introduction *	.50	
					51.1399		Medical Anatomy & Physiology	1.00	
					51.0799		Medical Terminology	.50	
					51.1199		Health Science, Advanced (capstone course)	1.00	
					32.0199		Student Internship (Critical Workplace Skills)	.50	
					* It is preferred that this course be taken prior to any foundation course.				
					Many Utah post-secondary programs accept high school courses toward a two- or four-year degree through concurrent enrollment. Check regional post-secondary Pathways for details.				

For more information on salary projections, labor market demand, and training options, visit [www.careers.utah.gov](http://www.careers.utah.gov).

**Note:** For more information, talk to your school counselor.

## High School to College and Career Pathway: Secondary

Area of Study: Health Science & Technology Education

### Pathway: Health Informatics

#### Medical Office Administrative Assistant

Middle School		State Requirements			High School Suggested Education Plan				College & Careers																											
7 <sup>th</sup> Grade	8 <sup>th</sup> Grade	Middle School		High School	9 <sup>th</sup> Grade Suggested	10 <sup>th</sup> Grade Suggested	11 <sup>th</sup> Grade Suggested	12 <sup>th</sup> Grade Suggested	Beyond High School																											
Language Arts 7 1.00	Language Arts 8 1.00	2.00	Language Arts	3.00	Language Arts 9 1.00	Language Arts 10 1.00	Language Arts 11 1.00	Language Arts 12 1.00	<p>There are a number of options for education and training beyond high school, depending on your career goals.</p> <p>&gt; Certificate</p> <p>&gt; Associate degree</p> <p>&gt; Bachelor's degree</p> <p>&gt; Professional degree</p> <p>&gt; On-the-job training</p> <p>&gt; Apprenticeship</p> <p>&gt; Military training</p>																											
Pre-Algebra 1.00	Elem. Algebra or Applied Math 1.00	2.00	Math	2.00	Geometry or Applied Math II 1.00	Intermediate Algebra 1.00	(1 additional credit—class of 2011)																													
Science .50	Science 1.00	1.50	Science	2.00	Earth Systems 1.00	Biological Science 1.00	Medical Anatomy and Physiology 1.00																													
Utah Studies .50	U.S. History I 1.00	1.50	Social Studies	2.50	Geography for Life .50	World Civilizations .50	U.S. History II 1.00	U.S. Government and Citizenship .50																												
P.E. 1.00	Health .50	1.50	P.E./Health	2.00	Participation Skills and Techniques .50	Fitness for Life .50 / Health Education .50 Lifetime Activities or Sport .50																														
The Arts .50	The Arts .50	1.00	Fine Arts	1.50	Fine Arts Courses 1.50																															
			Financial Literacy	.50			Financial Literacy .50																													
Keyboarding .50			Computer Tech.	.50	Computer Technology .50																															
CTE Intro 1.00		1.00	Career and Technical Education	1.00																																
<b>Workforce Trends</b> According to the Utah Department of Workforce Services, a total of 11,000 average annual job openings are expected for this occupation through the year 2010.		Core Curriculum and elective requirements may vary district to district. Check with your school counselor.  Concurrent enrollment course offerings vary by school and district.			<b>Career and Technical Education Recommended Pathway Courses</b> (Students may select individual courses for exploration, or a complete Pathway for an in-depth focus.) <b>CLASS AVAILABILITY MAY VARY AT YOUR HIGH SCHOOL</b>				<p>1.00 credit</p> <p>2.00 credits</p> <p>3.00 credits for completion</p>																											
<b>Get the Facts</b> As insurance policies become more intricate, and as government sets more guidelines and creates new laws surrounding the profession, there is an increased need for administrative help within hospitals, clinics, and other medical offices.					<table><tr><th>Course #</th><th>Foundation Courses: (required)</th><th>Credit</th></tr><tr><td>51.0703</td><td>Medical Office Administrative Assistant</td><td>1.00</td></tr><tr><td colspan="3"><b>Elective Courses:</b></td></tr><tr><td>51.0001</td><td>Health Science, Introduction *</td><td>.50</td></tr><tr><td>51.1399</td><td>Medical Anatomy &amp; Physiology</td><td>1.00</td></tr><tr><td>51.0707</td><td>Medical Records Technician</td><td>.50</td></tr><tr><td>51.0799</td><td>Medical Terminology</td><td>.50</td></tr><tr><td>51.0708</td><td>Medical Transcription</td><td>1.00</td></tr><tr><td>51.1199</td><td>Health Science, Advanced (capstone course)</td><td>1.00</td></tr><tr><td>32.0199</td><td>Student Internship (Critical Workplace Skills)</td><td>.50</td></tr></table>					Course #	Foundation Courses: (required)	Credit	51.0703	Medical Office Administrative Assistant	1.00	<b>Elective Courses:</b>			51.0001	Health Science, Introduction *	.50	51.1399	Medical Anatomy & Physiology	1.00	51.0707	Medical Records Technician	.50	51.0799	Medical Terminology	.50	51.0708	Medical Transcription	1.00	51.1199	Health Science, Advanced (capstone course)	1.00
Course #	Foundation Courses: (required)	Credit																																		
51.0703	Medical Office Administrative Assistant	1.00																																		
<b>Elective Courses:</b>																																				
51.0001	Health Science, Introduction *	.50																																		
51.1399	Medical Anatomy & Physiology	1.00																																		
51.0707	Medical Records Technician	.50																																		
51.0799	Medical Terminology	.50																																		
51.0708	Medical Transcription	1.00																																		
51.1199	Health Science, Advanced (capstone course)	1.00																																		
32.0199	Student Internship (Critical Workplace Skills)	.50																																		
* It is preferred that this course be taken prior to any foundation course.																																				
Many Utah post-secondary programs accept high school courses toward a two- or four-year degree through concurrent enrollment. Check regional post-secondary Pathways for details.																																				

<p>For more information on salary projections, labor market demand, and training options, visit <a href="http://www.careers.utah.gov">www.careers.utah.gov</a>.</p>
---------------------------------------------------------------------------------------------------------------------------------------------------------------------

# High School to College and Career Pathway: Secondary

Area of Study: Health Science & Technology Education

## Pathway: Therapeutic Services Dental

Middle School		State Requirements			High School Suggested Education Plan				College & Careers																							
7 <sup>th</sup> Grade	8 <sup>th</sup> Grade	Middle School		High School	9 <sup>th</sup> Grade Suggested	10 <sup>th</sup> Grade Suggested	11 <sup>th</sup> Grade Suggested	12 <sup>th</sup> Grade Suggested	Beyond High School																							
Language Arts 7 1.00	Language Arts 8 1.00	2.00	Language Arts	3.00	Language Arts 9 1.00	Language Arts 10 1.00	Language Arts 11 1.00	Language Arts 12 1.00	There are a number of options for education and training beyond high school, depending on your career goals.  > Certificate > Associate degree > Bachelor's degree > Professional degree > On-the-job training > Apprenticeship > Military training																							
Pre-Algebra 1.00	Elem. Algebra or Applied Math 1.00	2.00	Math	2.00	Geometry or Applied Math II 1.00	Intermediate Algebra 1.00	Pre-calculus 1.00	Statistics or Calculus 1.00																								
Science .50	Science 1.00	1.50	Science	2.00	Biology or Human Biology 1.00	Chemistry 1.00	Medical Anatomy and Physiology 1.00																									
Utah Studies .50	U.S. History I 1.00	1.50	Social Studies	2.50	Geography for Life .50	World Civilizations .50	U.S. History II 1.00	U.S. Government and Citizenship .50																								
P.E. 1.00	Health .50	1.50	P.E./Health	2.00	Participation Skills and Techniques .50	Fitness for Life .50 / Health Education .50 Lifetime Activities or Sport .50																										
The Arts .50	The Arts .50	1.00	Fine Arts	1.50	Fine Arts Courses 1.50				> Military training																							
			Financial Literacy	.50			Financial Literacy .50																									
Keyboarding .50			Computer Tech.	.50	Computer Technology .50				<b>Sample Occupations</b>  > Dental Assistant > Dental Ceramist > Dental Hygienist > Dental Laboratory Technician > Dentist > Health Science and Technology Education Teacher > Orthodontic Technician																							
CTE Intro 1.00		1.00	Career and Technical Education	1.00	<b>Career and Technical Education Recommended Pathway Courses</b> (Students may select individual courses for exploration, or a complete Pathway for an in-depth focus.) <b>CLASS AVAILABILITY MAY VARY AT YOUR HIGH SCHOOL</b>																											
<b>Workforce Trends</b> The dental industry is in critical need of dental assistants. Dentists are hiring more assistants to perform routine tasks so that they may devote more time to complex procedures. Employment for dental assistants is expected to increase 27% through the year 2014.  <b>Get the Facts</b> Research shows that chronic gum disease leads to the release of inflammatory substances and bacteria into the blood stream, which leads to heart disease.  In Utah, a dental hygienist and a dentist must be licensed.		Core Curriculum and elective requirements may vary district to district. Check with your school counselor.  Concurrent enrollment course offerings vary by school and district.		<table><tr><th>Course #</th><th>Foundation Courses: (required)</th><th>Credit</th></tr><tr><td>51.0601</td><td>Dental Assistant</td><td>2.00</td></tr><tr><td colspan="2"><b>Elective Courses:</b></td><td></td></tr><tr><td>51.0001</td><td>Health Science, Introduction *</td><td>.50</td></tr><tr><td>51.1399</td><td>Medical Anatomy &amp; Physiology</td><td>1.00</td></tr><tr><td>51.0799</td><td>Medical Terminology</td><td>.50</td></tr><tr><td>51.1316</td><td>Health Science, Advanced (capstone course)</td><td>1.00</td></tr><tr><td>32.0199</td><td>Student Internship (Critical Workplace Skills)</td><td>.50</td></tr></table>				Course #		Foundation Courses: (required)	Credit	51.0601	Dental Assistant	2.00	<b>Elective Courses:</b>			51.0001	Health Science, Introduction *	.50	51.1399	Medical Anatomy & Physiology	1.00	51.0799	Medical Terminology	.50	51.1316	Health Science, Advanced (capstone course)	1.00	32.0199	Student Internship (Critical Workplace Skills)	.50
				Course #	Foundation Courses: (required)	Credit																										
				51.0601	Dental Assistant	2.00																										
				<b>Elective Courses:</b>																												
				51.0001	Health Science, Introduction *	.50																										
				51.1399	Medical Anatomy & Physiology	1.00																										
51.0799	Medical Terminology	.50																														
51.1316	Health Science, Advanced (capstone course)	1.00																														
32.0199	Student Internship (Critical Workplace Skills)	.50																														
* It is preferred that this course be taken prior to any foundation course.																																
Many Utah post-secondary programs accept high school courses toward a two- or four-year degree through concurrent enrollment. Check regional post-secondary Pathways for details.																																
2.00 credits																																
1.00 credit																																
3.00 credits for completion																																

For more information on salary projections, labor market demand, and training options, visit [www.careers.utah.gov](http://www.careers.utah.gov).

### Beyond High School

There are a number of options for education and training beyond high school, depending on your career goals.

- > Certificate
- > Associate degree
- > Bachelor's degree
- > Professional degree
- > On-the-job training
- > Apprenticeship
- > Military training

### Sample Occupations

- > Dental Assistant
- > Dental Ceramist
- > Dental Hygienist
- > Dental Laboratory Technician
- > Dentist
- > Health Science and Technology Education Teacher
- > Orthodontic Technician

For more information on salary projections, labor market demand, and training options, visit [www.careers.utah.gov](http://www.careers.utah.gov).

**Note:** For more information, talk to your school counselor.

# High School to College and Career Pathway: Secondary

Area of Study: Health Science & Technology Education

## Pathway: Therapeutic Services

### Emergency Medical Technician (EMT)

Middle School		State Requirements			High School Suggested Education Plan				College & Careers																												
7 <sup>th</sup> Grade	8 <sup>th</sup> Grade	Middle School		High School	9 <sup>th</sup> Grade Suggested	10 <sup>th</sup> Grade Suggested	11 <sup>th</sup> Grade Suggested	12 <sup>th</sup> Grade Suggested	Beyond High School																												
Language Arts 7 1.00	Language Arts 8 1.00	2.00	Language Arts	3.00	Language Arts 9 1.00	Language Arts 10 1.00	Language Arts 11 1.00	Language Arts 12 1.00	<p>There are a number of options for education and training beyond high school, depending on your career goals.</p> <p>&gt; Certificate</p> <p>&gt; Associate degree</p> <p>&gt; Bachelor's degree</p> <p>&gt; Professional degree</p> <p>&gt; On-the-job training</p> <p>&gt; Apprenticeship</p> <p>&gt; Military training</p>																												
Pre-Algebra 1.00	Elem. Algebra or Applied Math 1.00	2.00	Math	2.00	Geometry or Applied Math II 1.00	Intermediate Algebra 1.00	(1 additional credit—class of 2011)																														
Science .50	Science 1.00	1.50	Science	2.00	Earth Systems 1.00	Biological Science 1.00	Medical Anatomy and Physiology 1.00																														
Utah Studies .50	U.S. History I 1.00	1.50	Social Studies	2.50	Geography for Life .50	World Civilizations .50	U.S. History II 1.00	U.S. Government and Citizenship .50																													
P.E. 1.00	Health .50	1.50	P.E./Health	2.00	Participation Skills and Techniques .50	Fitness for Life: 50 / Health Education .50 Lifetime Activities or Sport .50																															
The Arts .50	The Arts .50	1.00	Fine Arts	1.50	Fine Arts Courses 1.50																																
			Financial Literacy	.50			Financial Literacy .50																														
Keyboarding .50			Computer Tech.	.50	Computer Technology .50																																
CTE Intro 1.00		1.00	Career and Technical Education	1.00																																	
<b>Workforce Trends</b> <p>A growing and urbanized population will demand more emergency services, increasing the demand for professional emergency medical technicians (EMT) and paramedics. In Utah, the annual growth rate for EMTs is estimated to be 39%.</p> <b>Get the Facts</b> <p>There are approximately 750,000 EMTs across the nation. EMT-Basics comprise 71% of this total; EMT-Intermediates 7%; and EMT-Paramedics 22%.</p>		<p>Core Curriculum and elective requirements may vary district to district. Check with your school counselor.</p> <p>Concurrent enrollment course offerings vary by school and district.</p>			<b>Career and Technical Education Recommended Pathway Courses</b> <p>(Students may select individual courses for exploration, or a complete Pathway for an in-depth focus.)</p> <b>CLASS AVAILABILITY MAY VARY AT YOUR HIGH SCHOOL</b> <table><thead><tr><th>Course #</th><th>Foundation Courses: (required)</th><th>Credit</th></tr></thead><tbody><tr><td>51.0904</td><td>Emergency Medical Technician</td><td>1.00</td></tr><tr><td colspan="3"><b>Elective Courses:</b></td></tr><tr><td>51.0810</td><td>Emergency Medical Services, Introduction</td><td>.50</td></tr><tr><td>51.0001</td><td>Health Science, Introduction *</td><td>.50</td></tr><tr><td>51.1399</td><td>Medical Anatomy &amp; Physiology</td><td>1.00</td></tr><tr><td>51.0799</td><td>Medical Terminology</td><td>.50</td></tr><tr><td>51.1199</td><td>Health Science, Advanced (capstone course)</td><td>1.00</td></tr><tr><td>32.0199</td><td>Student Internship (Critical Workplace Skills)</td><td>.50</td></tr></tbody></table> <p>* It is preferred that this course be taken prior to any foundation course.</p> <p>Many Utah post-secondary programs accept high school courses toward a two- or four-year degree through concurrent enrollment. Check regional post-secondary Pathways for details.</p>				Course #	Foundation Courses: (required)	Credit	51.0904	Emergency Medical Technician	1.00	<b>Elective Courses:</b>			51.0810	Emergency Medical Services, Introduction	.50	51.0001	Health Science, Introduction *	.50	51.1399	Medical Anatomy & Physiology	1.00	51.0799	Medical Terminology	.50	51.1199	Health Science, Advanced (capstone course)	1.00	32.0199	Student Internship (Critical Workplace Skills)	.50	<p>1.00 credit</p> <p>2.00 credits</p> <p>3.00 credits for completion</p>	
Course #	Foundation Courses: (required)	Credit																																			
51.0904	Emergency Medical Technician	1.00																																			
<b>Elective Courses:</b>																																					
51.0810	Emergency Medical Services, Introduction	.50																																			
51.0001	Health Science, Introduction *	.50																																			
51.1399	Medical Anatomy & Physiology	1.00																																			
51.0799	Medical Terminology	.50																																			
51.1199	Health Science, Advanced (capstone course)	1.00																																			
32.0199	Student Internship (Critical Workplace Skills)	.50																																			

For more information on salary projections, labor market demand, and training options, visit [www.careers.utah.gov](http://www.careers.utah.gov).

**Note:** For more information, talk to your school counselor.

# High School to College and Career Pathway: Secondary

Area of Study: Health Science & Technology Education

## Pathway: Therapeutic Services Medical Assistant

Middle School		State Requirements			High School Suggested Education Plan				College & Careers																																		
7 <sup>th</sup> Grade	8 <sup>th</sup> Grade	Middle School		High School	9 <sup>th</sup> Grade Suggested	10 <sup>th</sup> Grade Suggested	11 <sup>th</sup> Grade Suggested	12 <sup>th</sup> Grade Suggested	Beyond High School																																		
Language Arts 7 1.00	Language Arts 8 1.00	2.00	Language Arts	3.00	Language Arts 9 1.00	Language Arts 10 1.00	Language Arts 11 1.00	Language Arts 12 1.00	<p>There are a number of options for education and training beyond high school, depending on your career goals.</p> <p>&gt; Certificate</p> <p>&gt; Associate degree</p> <p>&gt; Bachelor's degree</p> <p>&gt; Professional degree</p> <p>&gt; On-the-job training</p> <p>&gt; Apprenticeship</p> <p>&gt; Military training</p>																																		
Pre-Algebra 1.00	Elem. Algebra or Applied Math 1.00	2.00	Math	2.00	Geometry or Applied Math II 1.00	Intermediate Algebra 1.00	(1 additional credit—class of 2011)																																				
Science .50	Science 1.00	1.50	Science	2.00	Earth Systems 1.00	Biological Science 1.00	Medical Anatomy and Physiology 1.00																																				
Utah Studies .50	U.S. History I 1.00	1.50	Social Studies	2.50	Geography for Life .50	World Civilizations .50	U.S. History II 1.00	U.S. Government and Citizenship .50																																			
P.E. 1.00	Health .50	1.50	P.E./Health	2.00	Participation Skills and Techniques .50	Fitness for Life .50 / Health Education .50 Lifetime Activities or Sport .50																																					
The Arts .50	The Arts .50	1.00	Fine Arts	1.50	Fine Arts Courses 1.50																																						
			Financial Literacy	.50			Financial Literacy .50																																				
Keyboarding .50			Computer Tech.	.50	Computer Technology .50																																						
CTE Intro 1.00		1.00	Career and Technical Education	1.00																																							
<b>Workforce Trends</b> <p>A growing and aging population and technological advances in medicine make this one of the fastest growing occupations through the year 2014.</p> <p>According to the Utah Department of Workforce Services, a total of 27,000 average annual job openings are expected for this occupation through the year 2010.</p> <b>Get the Facts</b> <p>Medical assistants held about 387,000 jobs in 2004.</p>		<p>Core Curriculum and elective requirements may vary district to district. Check with your school counselor.</p> <p>Concurrent enrollment course offerings vary by school and district.</p>			<table><tr><th colspan="3">Career and Technical Education Recommended Pathway Courses</th></tr><tr><td colspan="3">(Students may select individual courses for exploration, or a complete Pathway for an in-depth focus.)</td></tr><tr><th colspan="3">CLASS AVAILABILITY MAY VARY AT YOUR HIGH SCHOOL</th></tr><tr><th>Course #</th><th>Foundation Courses: (required)</th><th>Credit</th></tr><tr><td>51.0801</td><td>Medical Assistant</td><td>2.00</td></tr><tr><td colspan="3">Elective Courses:</td></tr><tr><td>51.0001</td><td>Health Science, Introduction *</td><td>.50</td></tr><tr><td>51.1399</td><td>Medical Anatomy &amp; Physiology</td><td>1.00</td></tr><tr><td>51.0799</td><td>Medical Terminology</td><td>.50</td></tr><tr><td>51.1199</td><td>Health Science, Advanced (capstone course)</td><td>1.00</td></tr><tr><td>32.0199</td><td>Student Internship (Critical Workplace Skills)</td><td>.50</td></tr></table> <p>* It is preferred that this course be taken prior to any foundation course.</p> <p>Many Utah post-secondary programs accept high school courses toward a two- or four-year degree through concurrent enrollment. Check regional post-secondary Pathways for details.</p>				Career and Technical Education Recommended Pathway Courses			(Students may select individual courses for exploration, or a complete Pathway for an in-depth focus.)			CLASS AVAILABILITY MAY VARY AT YOUR HIGH SCHOOL			Course #	Foundation Courses: (required)	Credit	51.0801	Medical Assistant	2.00	Elective Courses:			51.0001	Health Science, Introduction *	.50	51.1399	Medical Anatomy & Physiology	1.00	51.0799	Medical Terminology	.50	51.1199	Health Science, Advanced (capstone course)	1.00	32.0199	Student Internship (Critical Workplace Skills)	.50	<p>2.00 credits</p> <p>1.00 credit</p> <p>3.00 credits for completion</p>	
Career and Technical Education Recommended Pathway Courses																																											
(Students may select individual courses for exploration, or a complete Pathway for an in-depth focus.)																																											
CLASS AVAILABILITY MAY VARY AT YOUR HIGH SCHOOL																																											
Course #	Foundation Courses: (required)	Credit																																									
51.0801	Medical Assistant	2.00																																									
Elective Courses:																																											
51.0001	Health Science, Introduction *	.50																																									
51.1399	Medical Anatomy & Physiology	1.00																																									
51.0799	Medical Terminology	.50																																									
51.1199	Health Science, Advanced (capstone course)	1.00																																									
32.0199	Student Internship (Critical Workplace Skills)	.50																																									

Sample Occupations

- > Certified Nurse Assistant (CNA)
- > Health Science and Technology Education Teacher
- > Licensed Practical Nurse (LPN)
- > Medical Assistant
- > Registered Nurse (RN)

For more information on salary projections, labor market demand, and training options, visit [www.careers.utah.gov](http://www.careers.utah.gov).

**Note:** For more information, talk to your school counselor.

# High School to College and Career Pathway: Secondary

Area of Study: Health Science & Technology Education

## Pathway: Therapeutic Services Nursing

Middle School		State Requirements			High School Suggested Education Plan				College & Careers																																				
7 <sup>th</sup> Grade	8 <sup>th</sup> Grade	Middle School		High School	9 <sup>th</sup> Grade Suggested	10 <sup>th</sup> Grade Suggested	11 <sup>th</sup> Grade Suggested	12 <sup>th</sup> Grade Suggested	Beyond High School																																				
Language Arts 7 1.0	Language Arts 8 1.00	2.00	Language Arts	3.00	Language Arts 9 1.00	Language Arts 10 1.00	Language Arts 11 1.00	Language Arts 12 1.00	<p>There are a number of options for education and training beyond high school, depending on your career goals.</p> <p>&gt; Certificate</p> <p>&gt; Associate degree</p> <p>&gt; Bachelor's degree</p> <p>&gt; Professional degree</p> <p>&gt; On-the-job training</p> <p>&gt; Apprenticeship</p> <p>&gt; Military training</p>																																				
Pre-Algebra 1.0	Elem. Algebra or Applied Math 1.00	2.00	Math	2.00	Geometry or Applied Math II 1.00	Intermediate Algebra 1.00	Pre-calculus or Statistics 1.00																																						
Science .50	Science 1.00	1.50	Science	2.00	Earth Sys. 1.00	Biology or Human Biology 1.00	Chemistry 1.00																																						
Utah Studies .50	U.S. History I 1.00	1.50	Social Studies	2.50	Geography for Life .50	World Civilizations .50	U.S. History II 1.00	U.S. Government and Citizenship .50																																					
P.E. 1.00	Health .50	1.50	P.E./Health	2.00	Participation Skills and Techniques .50	Fitness for Life .50 / Health Education .50 Lifetime Activities or Sport .50																																							
The Arts .50	The Arts .50	1.00	Fine Arts	1.50	Fine Arts Courses 1.50																																								
			Financial Literacy	.50			Financial Literacy .50																																						
Keyboarding .50			Computer Tech.	.50	Computer Technology .50																																								
CTE Intro 1.00		1.00	Career and Technical Education	1.00	<div><div>Career and Technical Education Recommended Pathway Courses</div><div>(Students may select individual courses for exploration, or a complete Pathway for an in-depth focus.)</div><div>CLASS AVAILABILITY MAY VARY AT YOUR HIGH SCHOOL</div><table><thead><tr><th>Course #</th><th>Foundation Courses: (required)</th><th>Credit</th></tr></thead><tbody><tr><td>51.0799</td><td>Medical Terminology</td><td>.50</td></tr><tr><td>51.1614</td><td>Nurse Assistant</td><td>.50</td></tr><tr><td></td><td>Elective Courses:</td><td></td></tr><tr><td>51.0001</td><td>Health Science, Introduction *</td><td>.50</td></tr><tr><td>20.0108</td><td>Food &amp; Nutrition I</td><td>.50</td></tr><tr><td>20.0118</td><td>Food &amp; Nutrition II</td><td>.50</td></tr><tr><td>20.0138</td><td>Foundations of Nutrition</td><td>.50</td></tr><tr><td>51.1199</td><td>Health Science, Advanced (capstone course)</td><td>1.00</td></tr><tr><td>20.0112</td><td>Human Development</td><td>1.00</td></tr><tr><td>51.1399</td><td>Medical Anatomy &amp; Physiology</td><td>1.00</td></tr><tr><td>32.0199</td><td>Student Internship (Critical Workplace Skills)</td><td>.50</td></tr></tbody></table><p>* It is preferred that this course be taken prior to any foundation course.</p><p>3.00 credits for completion</p></div>					Course #	Foundation Courses: (required)	Credit	51.0799	Medical Terminology	.50	51.1614	Nurse Assistant	.50		Elective Courses:		51.0001	Health Science, Introduction *	.50	20.0108	Food & Nutrition I	.50	20.0118	Food & Nutrition II	.50	20.0138	Foundations of Nutrition	.50	51.1199	Health Science, Advanced (capstone course)	1.00	20.0112	Human Development	1.00	51.1399	Medical Anatomy & Physiology	1.00	32.0199	Student Internship (Critical Workplace Skills)	.50
Course #	Foundation Courses: (required)	Credit																																											
51.0799	Medical Terminology	.50																																											
51.1614	Nurse Assistant	.50																																											
	Elective Courses:																																												
51.0001	Health Science, Introduction *	.50																																											
20.0108	Food & Nutrition I	.50																																											
20.0118	Food & Nutrition II	.50																																											
20.0138	Foundations of Nutrition	.50																																											
51.1199	Health Science, Advanced (capstone course)	1.00																																											
20.0112	Human Development	1.00																																											
51.1399	Medical Anatomy & Physiology	1.00																																											
32.0199	Student Internship (Critical Workplace Skills)	.50																																											
<p><b>Workforce Trends</b></p> <p>Health care is the largest and fastest-growing industry in the United States, employing over 10 million workers in more than 200 careers.</p> <p><b>Get the Facts</b></p> <p>In the U.S., registered nurses held approximately 2.4 million jobs in 2004, making registered nursing the largest health care occupation. About 3 out of 5 RN jobs are in hospitals, in inpatient and outpatient departments.</p>		<p>Core Curriculum and elective requirements may vary district to district. Check with your school counselor.</p> <p>Concurrent enrollment course offerings vary by school and district.</p>																																											

Many Utah post-secondary programs accept high school courses toward a two- or four-year degree through concurrent enrollment. Check regional post-secondary Pathways for details.

**Note:** For more information, talk to your school counselor.

# High School to College and Career Pathway: Secondary

Area of Study: Health Science & Technology Education

## Pathway: Therapeutic Services Pharmacy

Middle School		State Requirements			High School Suggested Education Plan				College & Careers																							
7 <sup>th</sup> Grade	8 <sup>th</sup> Grade	Middle School		High School	9 <sup>th</sup> Grade Suggested	10 <sup>th</sup> Grade Suggested	11 <sup>th</sup> Grade Suggested	12 <sup>th</sup> Grade Suggested	Beyond High School																							
Language Arts 7 1.00	Language Arts 8 1.00	2.00	Language Arts	3.00	Language Arts 9 1.00	Language Arts 10 1.00	Language Arts 11 1.00	Language Arts 12 1.00	<p>There are a number of options for education and training beyond high school, depending on your career goals.</p> <p>&gt; Certificate &gt; Associate degree &gt; Bachelor's degree &gt; Professional degree &gt; On-the-job training &gt; Apprenticeship &gt; Military training</p>																							
Pre-Algebra 1.00	Elem. Algebra or Applied Math 1.00	2.00	Math	2.00	Geometry 1.00	Intermediate Algebra 1.00	Pre-calculus 1.00	Calculus or Statistics 1.00																								
Science .50	Science 1.00	1.50	Science	2.00	Biology or Human Biology 1.00	Chemistry 1.00	Physics 1.00																									
Utah Studies .50	U.S. History I 1.00	1.50	Social Studies	2.50	Geography for Life .50	World Civilizations .50	U.S. History II 1.00	U.S. Government and Citizenship .50																								
P.E. 1.00	Health .50	1.50	P.E./Health	2.00	Participation Skills and Techniques .50	Fitness for Life .50 / Health Education .50 Lifetime Activities or Sport .50																										
The Arts .50	The Arts .50	1.00	Fine Arts	1.50	Fine Arts Courses 1.50																											
			Financial Literacy	.50			Financial Literacy .50																									
Keyboarding .50			Computer Tech.	.50	Computer Technology .50																											
CTE Intro 1.00		1.00	Career and Technical Education	1.00	<p><b>Career and Technical Education Recommended Pathway Courses</b></p> <p>(Students may select individual courses for exploration, or a complete Pathway for an in-depth focus.)</p> <p><b>CLASS AVAILABILITY MAY VARY AT YOUR HIGH SCHOOL</b></p> <table><thead><tr><th>Course #</th><th>Foundation Courses: (required)</th><th>Credit</th></tr></thead><tbody><tr><td>51.0805</td><td>Pharmacy Technician</td><td>2.00</td></tr><tr><td></td><td><b>Elective Courses:</b></td><td></td></tr><tr><td>51.0001</td><td>Health Science, Introduction *</td><td>.50</td></tr><tr><td>51.1399</td><td>Medical Anatomy &amp; Physiology</td><td>1.00</td></tr><tr><td>51.0799</td><td>Medical Terminology</td><td>.50</td></tr><tr><td>51.1199</td><td>Health Science, Advanced (capstone course)</td><td>1.00</td></tr><tr><td>32.0199</td><td>Student Internship (Critical Workplace Skills)</td><td>.50</td></tr></tbody></table> <p>* It is preferred that this course be taken prior to any foundation course.</p> <p>Many Utah post-secondary programs accept high school courses toward a two- or four-year degree through concurrent enrollment. Check regional post-secondary Pathways for details.</p>					Course #	Foundation Courses: (required)	Credit	51.0805	Pharmacy Technician	2.00		<b>Elective Courses:</b>		51.0001	Health Science, Introduction *	.50	51.1399	Medical Anatomy & Physiology	1.00	51.0799	Medical Terminology	.50	51.1199	Health Science, Advanced (capstone course)	1.00	32.0199	Student Internship (Critical Workplace Skills)
Course #	Foundation Courses: (required)	Credit																														
51.0805	Pharmacy Technician	2.00																														
	<b>Elective Courses:</b>																															
51.0001	Health Science, Introduction *	.50																														
51.1399	Medical Anatomy & Physiology	1.00																														
51.0799	Medical Terminology	.50																														
51.1199	Health Science, Advanced (capstone course)	1.00																														
32.0199	Student Internship (Critical Workplace Skills)	.50																														
<b>Workforce Trends</b> <u>Pharmacy Technician:</u> With increased medical needs of an aging population and additional tasks given to pharmacy techs., many job opportunities will be created, especially for those with formal training and certification. <u>Pharmacist:</u> New opportunities are emerging for pharmacists in managed care organizations, where they analyze trends and patterns in medication use, and in pharmacoeconomics—the cost and benefit analysis of different drug therapies.		<p>Core Curriculum and elective requirements may vary district to district. Check with your school counselor.</p> <p>Concurrent enrollment course offerings vary by school and district.</p> <p>In Utah, a pharmacist must be licensed.</p>																														
<b>Get the Facts</b> Pharmaceutical makers are accustomed to a research-to-market cycle of as long as 10 years in order to discover, develop and commercially launch a new drug.																																

**Sample Occupations**

> Health Science and Technology Education Teacher  
> Pharmacy Aide  
> Pharmacy Technician  
> Pharmacist

For more information on salary projections, labor market demand, and training options, visit [www.careers.utah.gov](http://www.careers.utah.gov).

**Note:** For more information, talk to your school counselor.



# High School to College and Career Pathway: Secondary

Area of Study: Health Science & Technology Education

## Pathway: Therapeutic Services Surgical Technician

Middle School		State Requirements			High School Suggested Education Plan				College & Careers																								
7 <sup>th</sup> Grade	8 <sup>th</sup> Grade	Middle School	High School	9 <sup>th</sup> Grade Suggested	10 <sup>th</sup> Grade Suggested	11 <sup>th</sup> Grade Suggested	12 <sup>th</sup> Grade Suggested	Beyond High School																									
Language Arts 7 1.00	Language Arts 8 1.00	2.00	Language Arts	3.00	Language Arts 9 1.00	Language Arts 10 1.00	Language Arts 11 1.00	Language Arts 12 1.00	<p>There are a number of options for education and training beyond high school, depending on your career goals.</p> <p>&gt; Certificate</p> <p>&gt; Associate degree</p> <p>&gt; Bachelor's degree</p> <p>&gt; Professional degree</p> <p>&gt; On-the-job training</p> <p>&gt; Apprenticeship</p> <p>&gt; Military training</p>																								
Pre-Algebra 1.00	Elem. Algebra or Applied Math 1.00	2.00	Math	2.00	Geometry or Applied Math II 1.00	Intermediate Algebra 1.00	Pre-calculus 1.00																										
Science .50	Science 1.00	1.50	Science	2.00	Biology or Human Biology 1.00	Chemistry 1.00	Medical Anatomy and Physiology 1.00																										
Utah Studies .50	U.S. History I 1.00	1.50	Social Studies	2.50	Geography for Life .50	World Civilizations .50	U.S. History II 1.00	U.S. Government and Citizenship .50																									
P.E. 1.00	Health .50	1.50	P.E./Health	2.00	Participation Skills and Techniques .50	Fitness for Life .50 / Health Education .50 Lifetime Activities or Sport .50																											
The Arts .5	The Arts .50	1.00	Fine Arts	1.50	Fine Arts Courses 1.50																												
			Financial Literacy	.50			Financial Literacy .50																										
Keyboarding .50			Computer Tech.	.50	Computer Technology .50																												
CTE Intro 1.00		1.00	Career and Technical Education	1.00	<div><div>Career and Technical Education Recommended Pathway Courses</div><div>(Students may select individual courses for exploration, or a complete Pathway for an in-depth focus.)</div><div>CLASS AVAILABILITY MAY VARY AT YOUR HIGH SCHOOL</div><table><thead><tr><th>Course #</th><th>Foundation Courses: (required)</th><th>Credit</th></tr></thead><tbody><tr><td>51.0909</td><td>Surgical Technician</td><td>2.00</td></tr><tr><td colspan="2">Elective Courses:</td><td></td></tr><tr><td>51.0001</td><td>Health Science, Introduction *</td><td>.50</td></tr><tr><td>51.1399</td><td>Medical Anatomy &amp; Physiology</td><td>1.00</td></tr><tr><td>51.0799</td><td>Medical Terminology</td><td>.50</td></tr><tr><td>51.1199</td><td>Health Science, Advanced (capstone course)</td><td>1.00</td></tr><tr><td>32.0199</td><td>Student Internship (Critical Workplace Skills)</td><td>.50</td></tr></tbody></table><p>* It is preferred that this course be taken prior to any foundation course.</p><p>Many Utah post-secondary programs accept high school courses toward a two- or four-year degree through concurrent enrollment. Check regional post-secondary Pathways for details.</p></div> <div>2.00 credits</div> <div>1.00 credit</div> <div>3.00 credits for completion</div>					Course #	Foundation Courses: (required)	Credit	51.0909	Surgical Technician	2.00	Elective Courses:			51.0001	Health Science, Introduction *	.50	51.1399	Medical Anatomy & Physiology	1.00	51.0799	Medical Terminology	.50	51.1199	Health Science, Advanced (capstone course)	1.00	32.0199	Student Internship (Critical Workplace Skills)	.50
Course #	Foundation Courses: (required)	Credit																															
51.0909	Surgical Technician	2.00																															
Elective Courses:																																	
51.0001	Health Science, Introduction *	.50																															
51.1399	Medical Anatomy & Physiology	1.00																															
51.0799	Medical Terminology	.50																															
51.1199	Health Science, Advanced (capstone course)	1.00																															
32.0199	Student Internship (Critical Workplace Skills)	.50																															
<p><b>Workforce Trends</b></p> <p>Demand for surgical technicians will rise as the population ages and as new technologies allow for more and varied surgeries. Hospitals will remain the primary employer, but physician offices and clinics, including ambulatory surgical centers, will provide most new jobs.</p> <p><b>Get the Facts</b></p> <p>Surgical technicians are commonly referred to as "scrubs." More than three-fourths of scrubs work in a hospital setting, with the exception of private scrubs who are employed directly by surgeons for special teams – like transplant work.</p>		<p>Core Curriculum and elective requirements may vary district to district. Check with your school counselor.</p> <p>Concurrent enrollment course offerings vary by school and district.</p>																															
<p><b>Sample Occupation</b></p> <p>&gt; Health Science and Technology Education Teacher</p> <p>&gt; Surgical Technician</p>																																	
<p>For more information on salary projections, labor market demand, and training options, visit <a href="http://www.careers.utah.gov">www.careers.utah.gov</a>.</p>																																	

**Note:** For more information, talk to your school counselor.

# High School to College and Career Pathway: Secondary

Area of Study: Health Science & Technology Education

## Pathway: Therapeutic Services

### Therapeutic Rehabilitation/Exercise (Formerly Exercise Science/Sports Medicine)

Middle School		State Requirements			High School Suggested Education Plan				College & Careers
7 <sup>th</sup> Grade	8 <sup>th</sup> Grade	Middle School		High School	9 <sup>th</sup> Grade Suggested	10 <sup>th</sup> Grade Suggested	11 <sup>th</sup> Grade Suggested	12 <sup>th</sup> Grade Suggested	Beyond High School
Language Arts 7 1.00	Language Arts 8 1.00	2.00	Language Arts	3.00	Language Arts 9 1.00	Language Arts 10 1.00	Language Arts 11 1.00	Language Arts 12 1.00	<p>There are a number of options for education and training beyond high school, depending on your career goals.</p> <p>&gt; Certificate</p> <p>&gt; Associate degree</p> <p>&gt; Bachelor's degree</p> <p>&gt; Professional degree</p> <p>&gt; On-the-job training</p> <p>&gt; Apprenticeship</p> <p>&gt; Military training</p>
Pre-Algebra 1.00	Elem. Algebra or Applied Math 1.00	2.00	Math	2.00	Geometry or Applied Math II 1.00	Intermediate Algebra 1.00	Pre-calculus or Statistics 1.00		
Science .50	Science 1.00	1.50	Science	2.00	Biology or Human Biology 1.00	Chemistry 1.00	Medical Anatomy and Physiology 1.00		
Utah Studies .50	U.S. History I 1.00	1.50	Social Studies	2.50	Geography for Life .50	World Civilizations .50	U.S. History II 1.00	U.S. Government and Citizenship .50	
P.E. 1.00	Health .50	1.50	P.E./Health	2.00	Participation Skills and Techniques .50	Fitness for Life .50 / Health Education .50 Lifetime Activities or Sport .50			
The Arts .50	The Arts .50	1.00	Fine Arts	1.50	Fine Arts Courses 1.50				
			Financial Literacy	.50			Financial Literacy .50		
Keyboarding .50			Computer Tech.	.50	Computer Technology .50				
CTE Intro 1.00		1.00	Career and Technical Education	1.00					
<b>Workforce Trends</b> Job growth will be concentrated in health care industry settings, such as ambulatory health care services and hospitals.		<p>Core Curriculum and elective requirements may vary district to district. Check with your school counselor.</p> <p>Concurrent enrollment course offerings vary by school and district.</p>			<b>Career and Technical Education Recommended Pathway Courses</b>				<p>2.00 credits</p> <p>1.00 credit</p> <p>3.00 credits for completion</p>
<b>Get the Facts</b> Physical Therapy is ranked among the top 10 fields, and is expected to remain a top field well into the 21 <sup>st</sup> century.									
In Utah, an athletic trainer, physical therapist, physician, and physician assistant must be licensed.									
(Students may select individual courses for exploration, or a complete Pathway for an in-depth focus.)									
CLASS AVAILABILITY MAY VARY AT YOUR HIGH SCHOOL									
Course #	Foundation Courses: (required)				Credit				
51.0913	Exercise Science/Sports Medicine				1.00				
51.1399	Medical Anatomy & Physiology				1.00				
Elective Courses:									
51.0001	Health Science, Introduction *		.50						
51.0799	Medical Terminology		.50						
51.1199	Health Science, Advanced (capstone course)		1.00						
32.0199	Student Internship (Critical Workplace Skills)		.50						
* It is preferred that this course be taken prior to any foundation course.									
Many Utah post-secondary programs accept high school courses toward a two- or four-year degree through concurrent enrollment. Check regional post-secondary Pathways for details.									

<p>For more information on salary projections, labor market demand, and training options, visit <a href="http://www.careers.utah.gov">www.careers.utah.gov</a>.</p>
---------------------------------------------------------------------------------------------------------------------------------------------------------------------

**Note:** For more information, talk to your school counselor.